**Process for the automatic production of a processor from
a machine description**

Summary

The invention is based on the task to undertake machine descriptions, with which
an automated optimal hardware design of SIMD processors can be carried out. This is
solved by the fact that functional units are selected from a criterion in the machine
description, which is vector processible.   A first or second reduced functional unit are
selectively defined from a respective vector-processing functional unit , in which the reduced
functional units process only a data element of a vectoral value. All reduced functional units,
which use common control signals for the processing of a respective data element belonging
to the vectoral value, are condensed to a disk. Reduced functional units, which process the
same data elements in a sequence at least indirectly, are condensed to a disk module. The
disk is reproduced with the contained reduced functional units so often that all reduced
functional units represent the functionality of their respective selected vector-processing
functional unit.
(Fig.)